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Some Wartime Guideposts

for
1944
4-H CLUB
PROGRAM

Contributions by Federal Extension Specialists

EXTENSION SERVICE
U. S. DEPARTMENT OF
AGRICULTURE

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FOREWORD

Hard work and devoted effort on the part of our 1,700,000 club members have boosted our Nation's food production and thereby made a material contribution toward winning the war. On their home farms and in their communities 4-H Club members have been among the outstanding soldiers of the soil.

The influence of 4-H Club work, however, extends much further than the individual club member's work and project. Club work popularizes good practice. When 4-H Club members undertake to introduce a new seed variety, a new kind of crop, or a new method of food preservation, usually the home farm and entire community get interested in a short time. Thus, every 4-H Club member becomes a leader.

For this reason I regard the attached suggestions by our Federal Extension specialists under the leadership of J. L. Boatman as of extreme importance. It is hoped that State extension specialists will take these suggestions and adapt them to the needs of local communities. Until this is done, these suggestions cannot meet the needs of 4-H Club members in the most effective manner.

To meet increased food goals, farm people must rely largely on improving their production methods. The contributions of extension specialists in telling us how to do this have always been great.

I trust that their 1944 suggestions will receive wide circulation among our 4-H Club members throughout the Nation.

M. L. Wilson
Director of Extension Work

ADAPTING 4-H PROGRAMS TO COMMUNITY FARMING PATTERNS

J. Douglas Ensminger
Extension Rural Sociologist

How many times have you heard the statement made: "There is a decided lack of leadership in this community, and because of this the 4-H Clubs either have not been organized or failed soon after organization." Careful analysis of this statement will probably reveal a lack of leadership, because the people did not see the need for the type of 4-H program being sponsored. The community is rare indeed that does not produce leaders for the things it feels are important and affect it.

The foregoing being true, 4-H Club people will want to visit with the farm families in each neighborhood and community to find out what their problems are and to learn of the hopes and aspirations these farm people have for their boys and girls. Through this process the 4-H organizer can discover potential leaders and determine the type of 4-H activity best fitted to the farm and home patterns of the community.

Once the people of the community recognize the need for 4-H Clubs, they will produce the leaders and support the activity. When the community recognizes the need for the project, the organizer can then assist in the training of leaders in methods of 4-H Club organization.

With the country at war, we are all doubling our efforts to produce the needed food and fiber and to conserve our resources. By having 4-H Club projects adapted to the community farming pattern, we can be reasonably sure of community support and move further down the road in our efforts to enroll all eligible boys and girls in 4-H activities that will contribute to Victory.

PROJECT ORGANIZATION WITH EMPHASIS ON LABOR-SAVING PRACTICES

L. M. Schruben
Extension Economist

4-H Club members should plan their projects for 1944 to achieve the most food and fiber per unit of labor. The following checks should be made for all projects:

1. Consider carrying fewer projects in 1944, each project being carried on a scale large enough to permit efficient use of time and facilities devoted to the project. A unit of 5 calves takes little more time to care for than 1; 200 chickens require little more time than 25; a garden large enough to meet the needs of the entire family requires less time proportionately than care of a few short rows; tools need to be cleaned and put away regardless of the time they are used.

2. Conduct the projects as they would be conducted commercially, and omit the frills and time-consuming luxuries that never pay dividends. The time consumed per unit of production of 4-H projects should not be greater than the time required for similar production in regular farm operations.

3. Carefully analyze all the steps usually followed in carrying a project to see if time cannot be saved in doing the work. Parents can also be assisted in analyzing other farm operations, especially farm chores, for time-saving changes. A chart showing graphically all the trips made from building to building and job to job in doing chores should be developed. By means of this chart, possible time-saving short cuts can be detected and applied. Leaders and 4-H Club members can assist in instructing inexperienced farm workers in doing jobs the easiest, safest, and fastest way.

With few if any sections of the country having surplus labor on farms in 1944, every operation should be carefully analyzed from the standpoint of labor requirements. Unless the analysis shows that the time spent is paying dividends in the production of food and fiber, it should be questioned and perhaps result in a different procedure being worked out that would provide more efficient use of time.

4-H MEMBERS' FINANCIAL PROGRAM

James L. Robinson, Extension Economist

Maximum production by 4-H members to meet war needs must be financed just as production by their parents is financed. Also, members will use their own resources, however limited they may be, before borrowing money, just as their parents do. The best use 4-H Club members can make of their money is to increase their essential production further whenever possible.

Many club members, however, should increase their production still further through the use of credit. A large majority of them have always been financed by their parents. But production credit associations and banks are granting loans to thousands of these young people and would be glad to serve thousands more. Many club leaders are handling these loans according to plans especially designed to fit the needs of club members. The production credit associations use a group loan plan that also provides training in cooperation.

Before credit is used, each 4-H Club member should carefully consider two phases of the undertaking: (1) Will the loan increase the profit to be made on the project? and (2) How will the money be obtained to pay the debt? On work stock and breeding cattle loans, plans should be made to pay at least one-third of the debt within 12 months. This usually calls for income from cash-crop or meat-animal projects or off-the-farm work.

No matter whether the money is obtained from the parent or from a credit agency, it should be handled in a businesslike manner. This is usually

more easily effected if a note is signed. Sometimes a chattel mortgage should also be given. These steps familiarize the member with the usual credit forms and procedures they will need to use to a larger extent when they run a farm for themselves. When obtaining loans from credit agencies, young people also make themselves personally known to these leaders and establish their credit ratings.

All 4-H Club members should use part of their income to buy war bonds: as many bonds as they can pay for without interfering with their production programs and a minimum of personal expenses. The 4-H Club members in this way serve three important ends: (1) They help to finance the war, (2) they do their part to hold down prices, and (3) they learn thrift which will enable them to become successful in their chosen vocations.

Such savings are easier to make now than they have been in the past or are likely to be in the future, because 4-H members are making more profits out of their production projects and there is less call for spending their money on gasoline, clothes, and other scarce articles. Later, the war bonds bought will provide the means for obtaining additional education, getting a start in farming, setting up housekeeping, or paying for worth-while recreation.

Sometimes members will be so favorably situated that they can combine their production and savings program by growing (not buying highpriced pure-breds) breeding livestock for their future use alongside the meat animals to provide food for freedom, or by getting needed equipment that they can use for a number of years.

FARM ACCOUNTING

Z. L. Galloway, Extension Economist

The farm is a business, and to be successful it must be conducted with sound business facts in mind. Club work on the whole will be more effective in contributing to the war effort and, at the same time in preparing boys and girls for successful farm life in the post-war period, if more emphasis is given to better business methods including better records and more planning for the future welfare of the business.

Members of 4-H Clubs should assume responsibility for some worth-while wartime phase of the activities on the farm. This will not only give the club members valuable experience, but will be greatly appreciated by older members of the family. Club members can make a worth-while contribution to the war effort of the farm and the Nation through keeping records of financial and production activities on the farm. These may be simple financial records of one or more important enterprises, or rather complete financial records, including inventories, for the entire farm and a record of crop and livestock production.

The need for adequate farm records, though always urgent, is much more pressing now than formerly. Present income-tax regulations are such that most all commercial farmers with productive farms will be required to file income-tax returns. Accurate income-tax returns on the farm business cannot be prepared without records, kept currently throughout the year. Without financial records many items of expense and some items of receipt will be overlooked. Moreover, a farmer cannot report on the accrual basis unless he has farm records set up on that basis.

The need for much larger supplies of food and fiber from American farms during the present emergency has made it desirable that each farm expand production as much as is possible with the labor, machinery, and power available on the farm. On each farm there are some enterprises, crops, and livestock that can be expanded to better advantage than others. This is due to the way in which the several enterprises use the various factors of production, such as land, labor, machinery, and supplies. Farm records on your own farm are the most important source of useful information upon which to base plans for expanding production of the farm. These records furnish indispensable information bearing on which enterprises can best be expanded and which should be contracted or held nearly the same.

Farm records are helpful also in obtaining credit on a sound basis at fair interest rates. The Farm Credit and Farm Security Administrations, insurance companies, local banks, and other institutions lending money to farmers usually want to know what progress the farmer has been making financially before a new loan is made. Financial statements covering 2 or 3 years' operation of the farm offer the soundest basis for extending farm credit.

Farm records well kept are the best possible means of knowing the farm business, its strong and its weak points. Intimate knowledge of the business side of the farm is the first essential in being able to adjust the various phases of the business to attain the fullest production of which it is capable. A careful study of the farm records then offers a dependable basis for constructive farm planning. Records of the principal enterprises on the farm will enable the manager to get greater efficiency in the production of these enterprises, and, to that extent, increase the efficiency of the entire farm.

CROP PRODUCTION

O. S. Fisher
Extension Agronomist

The 4-H Club members responded enthusiastically to the challenge to produce enough food to feed "a fighting man" in 1943. In 1944 we have a bigger job to do, for we have more than doubled the number of men and women in the fighting forces. Also, the victories achieved by our fighting forces during the year have freed millions of people; and these people must be fed, some by direct supplies of food and some by aiding them to feed themselves.

This need to increase our production of food provides an opportunity to encourage club members further to enlarge their 4-H crop projects. I should like to suggest the slogan "Feed two fighters in 1944." Physical conditions such as age and lack of necessary acreage, may prevent some 4-H members from reaching their goal, but every 4-H Club should make this its goal, and those who have the necessary acreage should produce enough more to make attainment of this goal possible.

By doubling the figures given in the circular Feed a Fighter in 1943, 1/ each 4-H Club member can produce the equivalent of enough food to feed two fighters in 1944, if he or she raises 16 to 20 acres of wheat; 6 to 8 acres of corn; 6 to 8 acres of rice; 0.8 to 1 acre of tomatoes; 2 to 2-1/2 acres of potatoes; 0.6 to 1 acre of onions; 4 to 8 acres of beans or peas; 1 acre of carrots; or 2 acres of mixed vegetables.

Another phase of the agronomy program in which 4-H Club members can be of tremendous assistance is seed production. The country needs more vegetable, grass, and legume seeds. If increased food supplies are to be grown, we must have more seeds of almost every kind, especially more good seeds. A ton of good hay or its equivalent in good pasture will produce 1,451 pounds of milk, 72 pounds of butter, or 179 pounds of beef. To get this good pasture or hay, we need more seed of improved grasses and legumes.

Many 4-H members may find in seed production a way to meet their goal to feed two fighters in 1944 and, from the income received from sale of this seed, to increase the number of war stamps and bonds they are able to purchase.

It can and will be done.

HORTICULTURE

R. J. Haskell

Acting Extension Horticulturist

As the United Nations take the offensive, food production on the home front becomes increasingly important. Probably, every 4-H Club member should carry a food-production project in 1944 either as a major or minor activity. The growing of vegetables or fruits is one phase of food production to which most 4-H Club members can make a fine contribution. Boys and girls can work on vegetable farms, have their own victory gardens, help with the family garden, grow fruits and vegetables for sale, or select some other horticultural activity that will help in the wartime food production effort.

Credit for Farm Work

Many 4-H members have done a man's job on fruit or vegetable farms this past season. When they do that, little time remains to carry on their own individual projects. It would seem that some system might be worked out

1/ Feed a Fighter in 1943. Z. L. Galloway, U. S. Dept. Agr. Ext. Serv. Cir. 401. 6 pp., rev. February 1943. Processed.

whereby those who devote a certain length of time to work on commercial vegetable or fruit farms could receive 4-H Club credit. A reasonable number of hours (perhaps 200 to 300), and a detailed report of the work should be required.

Victory Gardens

Victory Gardens offer one of the best opportunities for 4-H projects. In 1944 emphasis should be placed on points to be stressed in the national program.

Gardens will need to be large enough to produce most of the supply of vegetables required by the farm family.

Better and more productive gardens are wanted, with plenty of green and leafy vegetables, yellow vegetables, and tomatoes for use fresh and preserved. Farm gardens in 1944 should produce the family's supply of staple vegetables such as potatoes, sweetpotatoes, turnips, dry beans, blackeyed peas, and edible soybeans.

Encouragement should be given to the planting of rhubarb, asparagus, small fruits, and some tree fruits on many more rural and suburban homesteads.

Greater emphasis should be placed on thorough preparation and fertilization of the land and on pest control.

Fall and winter gardens should be emphasized. The idea has taken hold well, but in many States there is still a long way to go.

Storage of vegetables and fruits needs more attention, and 4-H projects could well be built about that phase of food preservation. Of course canning and preserving garden products should continue to be emphasized.

Usually the family garden will be too much for the 4-H Club boy or girl of average age to handle alone, and so his project should include his share or that part of the work for which he is particularly responsible.

Probably distinction should be made in 4-H garden projects between the large farm garden of 1/2 to 1-1/2 acres and the smaller village garden of 1/20 to 1/3 acre.

Commercial Horticulture

The growing of a crop for sale has been a standard type of 4-H project for years. Through such a project the boy or girl gains valuable first-hand experience in production, marketing, and management. Several crops lend themselves to this type of project - potatoes, sweet corn, tomatoes for market and the cannery, snap beans, dry beans, lima beans, sweetpotatoes, cabbage, etc. - as well as long-time crops such as rhubarb, asparagus, strawberries, and raspberries.

The possibility of harvesting the wild fruit crops is an activity that should not be overlooked for its value as an educational project and as a food-conservation measure. Last spring certain 4-H Clubs in Tennessee harvested, packed, and sold large quantities of wild blackberries to local canners at good profits. At the same time they added to the Nation's supply of canned fruit.

Seed Production and Seed Testing

The production of certified seed potatoes has been a common project in some States. This might be expanded in 1944 if proper arrangements for inspection can be made with seed certification officials.

Production of vegetable seeds in general is a technical job and for the most part should be left to the seed companies. The outlook for an adequate vegetable seed supply in 1945 is favorable. There may be a few kinds of seed that could be saved by 4-H members. Seed-saving projects will need to be closely supervised by horticultural specialists.

A considerable volume of 1943 garden seed will be left over in 1944. Some of this will be suitable for use but some will have lost so much in germination that it should be discarded. 4-H Clubs may find they can make a valuable contribution by providing seed-testing services for local growers and Victory gardeners.

ENTOMOLOGICAL ACTIVITIES HELPFUL IN WAR AND PEACE

M. P. Jones
Extension Entomologist

Agricultural products, so vitally needed in the war, must not be wasted. The need for food and fiber will extend for several years after hostilities cease. This should prompt us to check every source of waste. Insect pests are ever present and destroy enormous quantities of our foods, feeds, and fibers. Bees, on the other hand, are making a valuable contribution to the war effort by providing honey and beeswax, and by increasing the set of fruit and seed by better pollination.

Although control of some insects is relatively simple, control of many kinds is rather complicated and involves knowledge of the life history of the insect concerned, how weather affects it, and the choice of insecticide. No club member can be expected to carry out all the following suggestions. However, club members can apply certain of these suggestions with little help. Where the organization within the State is adequate to train the members properly and supervise their work, some of those most adaptable may undertake the more complicated entomological services.

The following seven points are presented to outline some features of entomology in which club members may participate:

1. Direct service.

4-H Club members can be of great service by applying insect control measures themselves, but possibly can render even greater help by serving as missionaries in demonstrating the merits of insect control to other people, both youth and adults. Those who can recognize insect pests and know their food and life habits as well as control measures, will be equipped to give the greatest service. Such information often will show the wisdom of using cultural practices or mechanical means of control instead of insecticides.

2. Insecticide supplies.

The supply of certain insecticides is short because they are imported. We have lost control of some of the land where they are grown, limited shipping space has reduced our stocks, and chemicals used in making some insecticides are needed in the manufacture of the implements of war. Because of these situations the available supply of insecticides must be used wisely.

3. Why know insecticides?

The shortage of recommended insecticides has accounted for many new products on the market. Some are satisfactory and some are fair. Some, however, not only are worthless, but waste critical materials because enough of the recommended materials are added to permit labeling that suggests the products are satisfactory. However, insufficient quantities of the critical materials to control insects are used in these worthless mixtures, hence the critical materials are wasted. 4-H Club members can do much to help themselves and their neighbors by learning how to interpret labels of proprietary insecticides, and purchasing only the materials recommended by their entomologists.

4. Be an entomologist's aid.

Many entomologists and technical advisers have been called from the agricultural field to work on those insect problems affecting the welfare of the armed forces. 4-H Club members can learn much about entomology and use such information to extend the efforts of the entomologists who have remained to fight on the home front.

5. Participate in surveys.

During 1943 about 500 club boys in some five or six States conducted weekly surveys on cotton insects. Their reports were sent to the extension entomologist, or someone acting in that capacity, and in turn were sent, along with survey reports from other sources, to officials in Washington, D. C. Such information was useful to Federal people in the distribution of insecti-

cides, to State people in conducting their educational program, and locally to show the merits of knowing enough about the population of insects to apply insecticides wisely. Survey work should be expanded during 1944, and thereafter. Similar surveys were made on the Mexican bean beetle in another State.

6. Apiculture.

- Promote and participate in a beeswax salvage drive.
- Demonstrate winter packing of bees and the need for an ample store of food.
- Demonstrate methods of requeening and the value of a young, prolific queen.
- Demonstrate the value of bees in pollination.
- Participate in surveys to locate sources of foulbrood, and report findings to the proper authorities.
- Cut bee trees; transfer bees, and salvage beeswax.

7. Insect control. 2/

A. Exhibits.

- (1) In banks, post offices, hardware and seed stores, cotton gins, and like places:
 - a. Collections of insects, both beneficial to and pests of a certain crop, or one showing Victory Garden pests.
 - b. Timely exhibit of single pest showing life stages, damage, and control.
- (2) For use of various group leaders:
 - a. Mounts showing life history and damage.

B. Surveys.

- (1) Conduct surveys similar to those for cotton insects, Mexican bean beetle, foulbrood.
- (2) Locate grasshopper hatching beds in spring and inform farmers.
- (3) Determine insect situations in community for the information of local advisory service.

2/ More Specific Information may be found in 4-H Club Insect Manual. M. P. Jones. U. S. Dept. Agr. Misc. Pub. 318. I-II and 68 pp., illus. rev. April 1943.

C. Informational service.

- (1) Service for Victory gardeners regarding the time that specific insects appear and materials to use for control.
- (2) Inform farmers of whereabouts of grasshopper hatching beds.
- (3) Help to spread information originating with the entomologists on insect-control programs and on recommendations.

D. Custom work.

- (1) Victory Garden insect control (club members obtain dusting and spraying equipment and contract for neighborhood insect control). They should render service and make available equipment go further.
- (2) Treat cattle for grubs, ask small fee per herd.
- (3) Older members construct and operate portable sheep-dipping vats.

E. Demonstrations (no limit to number, only a few listed).

- (1) How to control insects attacking Victory Gardens and how to apply insecticides.
- (2) Treat for cattle-grub control.
- (3) Treat for mange and lice on hogs, ticks and lice on cattle.
- (4) Treat poultry for lice and mites.
- (5) Make counts to determine insect populations.
- (6) Clean, sun, wrap, and store woolens and furs for protection from moths.
- (7) Mix and apply insecticides properly.

F. Organize to promote and participate in specific control programs.

- (1) Applying control measures for cattle grubs.
- (2) Baiting grasshoppers.

- (3) Eliminating breeding places for flies, house mosquitoes, etc.
- G. Organize entomology clubs to study insects for the help they can render in this emergency and better to equip themselves for the future.

PLANT PATHOLOGY

R. J. Haskell
Extension Plant Pathologist

Stopping the leaks in crop production, and improving quality and preventing spoilage of crop products are the broad objectives of extension work in plant pathology.

Most of the 4-H Club work in this subject has been through demonstration teams, disease identification contests, demonstrations and field trips at camps, and especially through the teaching of plant-disease control practices as a part of the regular crop projects. The subject does not lend itself readily to treatment as a club project in itself, although when well-trained leaders can be found it can be handled that way, particularly with older youths. In 1944 these teaching methods should be used more generally, and the emphasis should be on disease control as a means of producing and conserving food.

Although there are many ways of fighting plant diseases, the most important ones with which 4-H Club members can help would seem to be: (1) Use of certified seed, (2) seed treatment, (3) spraying and dusting, and (4) use of resistant varieties.

Certified Seed

Seed potatoes of high quality are needed to plant the greatly expanding acreage. Not enough certified seed are being grown to meet demands, and the Government has provided for an emergency "war-approved seed." Both certified and war-approved seed will usually bring better prices than table stock, and there may be an opportunity here for 4-H Club members to grow them. Also they can learn to recognize the various diseases for which field inspections are made and help with roguing operations on seed farms in seed-potato areas.

Seed-Treatment Services

With the shortage of labor, boys can render a patriotic service by organizing seed-treating rings for the purpose of treating on a custom basis seed for parents and neighbors. Stands of crops such as wheat, oats, barley, corn, flax, cotton, peanuts, are generally improved, seed-borne diseases

controlled, and yields usually stepped up by treating with the proper chemical dust. Treating machines can be made inexpensively at home. Farmers are usually glad to pay well to have this job done for them. Boys or young men in many instances have operated these treating services at profit to all concerned. The better outfits clean seed as well as treat it, and as time goes on custom cleaning and treating of seed should become the regular practice.

Spraying and Dusting Service

4-H members should learn the common crop diseases and pests that are controlled by sprays and dusts, and not only wage war against them in their own and their parents' gardens or fields, but also in their neighbors' by organizing spraying services. One or more boys could obtain the use of a good machine and do spraying or dusting on a custom basis.

Resistant Varieties

Losses from many plant diseases are gradually being pared down by the development and introduction of resistant varieties.

Sometimes it is desired to increase the supply of seed of resistant varieties quickly to meet an emergency and to introduce it rapidly throughout a community. In such a case the 4-H Club organization can sometimes help greatly. For instance, in one Texas county 21 4-H members signed to grow a total of 66 acres of blight-resistant milo seed with which to improve the milo grown in the county. The seed produced was nearly enough to supply all the farms in the county for the following year. One boy grew 150 percent more milo to the acre than his father did which brought from the father the remark, "This boy is showing me the road to better farming."

LIVESTOCK

C. D. Lowe

Extension Animal Husbandman

The educational values of 4-H Club work are recognized by the Office of Food Distribution of the War Food Administration and the Office of Price Administration in special rules covering the marketing of 4-H and other junior-club livestock. These rules are designed to permit the support of club livestock sales without making the animals a source of point-free meat. There are no restrictions as to who buys the livestock or the price paid, but all the meat from such animals shall be directed into established trade channels where rationing and price-ceiling regulations control its distribution and consumption.

County agricultural agents, vocational-agriculture instructors, and other authorized agents of junior clubs are required to certify that sale animals are bona fide club stock and shall also apply to the local Food Distribution Office for special permits or quotas, if needed.

Wartime conditions warrant an increase in unit size of livestock-club projects so as to make them contribute definitely to the commercial output of meat, which rates high as a war commodity. In doing this, efficient use of feed and production of animals of a quality that will meet the major demands of our wartime economy are essential factors for consideration.

The knowledge and skills of experienced livestock club members might well be utilized for supervising and directing livestock production enterprises of beginners or others called upon to perform more direct war duties.

4-H MEAT PROGRAM

K. F. Warner
Extension Meat Specialist

Meat budgets, meat preparation, meat preservation, and meat selling under rationing all are activities that can be fitted into a wartime 4-H project. Perhaps the most useful program would be one which included all these in addition to production. For example:

1. Budget the family's share of meat for the year.
2. Calculate the number and weight of animals needed to supply that meat.
3. Produce those animals and fatten them for slaughter at the desirable season of the year.
4. Dress, cut and cure, freeze, can or otherwise preserve the meat in accordance with family needs, taste, and equipment.
5. Compare the estimated share and the calculated production with the amount actually produced and sell the surplus, if any, in accordance with rationing rules.
6. Calculate the cost of this home-raised meat and compare it with the retail cost of similar products.
7. Suggest improvements in the kind, quantity, and quality of meat to be produced next year and desirable changes in methods of handling or preserving.

4-H DAIRY PROGRAM TO BOOST PRODUCTION

A. B. Nystrom, J. B. Parker, R. C. Jones, W. E. Wintermeyer
Extension Dairymen

Why not make it possible for a 4-H dairy club member to select a project which would not entail showing an animal? This year, showing dairy animals at local fairs and regional shows will be difficult because of the transportation problem, to say nothing of the labor involved.

Credit could be given for systematic work, done on a practical dairy farm, that will contribute definitely to the war effort.

Suggestions:

1. Keep feed records of each cow in the dairy herd for a year. Make a complete report at the end of the year.
2. Keep dairy milk weights of each cow in the herd and report monthly as well as yearly.
3. Weigh and test milk for each cow in the herd 1 day each month and calculate the monthly and yearly production for each cow and for the herd.
4. Keep a daily record of sales of milk and cream from the dairy herd and report monthly as well as yearly.

These suggestions could be added to in many ways, but the thought is to let the boy or girl confine the work to practices that will be useful in the part that the farm will contribute to the war effort.

WARTIME POULTRY-CLUB ACTIVITIES

H. L. Shrader
Extension Poultry Husbandman

The 4-H Poultry Clubs have adapted their programs to wartime conditions. They have expanded their production units in line with the expanded egg and poultry goals. The number of units constructed of home-made brooding equipment has been increased. This was brought about by the lack of commercial equipment due to shortage of critical materials. The ingenuity and versatility of the 4-H Club member have been demonstrated with this improvised but successful equipment.

In Michigan and other States, older 4-H Club members were specially trained in culling poultry and helped to relieve the manpower shortage by doing culling-service work in their respective communities.

In other States emphasis has been placed on meat production, and an extra lot of broilers has been raised by 4-H poultry-club members.

With a shortage of certain ingredients for feed, the club members have been called on to advise neighbors on feed formulas. This had been a part of their training, and the information passed on has been of great assistance.

Club members have participated in the Victory Cockerel Campaign. In the drive for lower poultry mortality put on by the National Poultry Advisory Council they have assisted. Club leaders have all received the booklet on the Laying House Program 3/ and have helped to publicize the slogan "Save a hen to feed a soldier."

HOME MANAGEMENT

Mary Rokahr

Extension Home-Management Specialist

How 4-H Club Girls Can Help Simplify Housework

4-H Club girls can be of much assistance to their parents and others in 1944 if they will continue the fine work that they started in 1943. They can take over the responsibility of keeping their homes clean and orderly, assist with the preparation of meals and the care of children, and perhaps, when their mothers are away, assume responsibility for the management of the entire household.

The program can be organized as a separate 4-H home-management project or on an activity basis, so that 4-H Club girls will be given credit for assistance with any household task. Whatever the household task may be for which the 4-H Club girl takes responsibility, here is a suggested procedure for her to follow:

1. Know why it is necessary to do the piece of work.
2. Know and use the best ways to do it.
3. Learn to do the job in the least amount of time.
4. Plan the work to provide for good light and working equipment within easy reach, so that taking extra steps or making extra motions can be avoided.
5. Plan the time to do the job so that it fits in with other jobs that need to be done.

3/ National Poultry Advisory Council. 14 pp., illus. Chicago, Ill. (1943.)

Many of the jobs 4-H Club girls will be doing in 1944 such as washing dishes, sweeping floors, dusting furniture, washing clothes, and peeling potatoes will have to be done over and over again. Help these girls to become "motion minded" in doing their tasks. One way to do this would be to analyze the job by having 4-H girls write down exactly how the task is being done now, and how it may be improved by using the principles of work simplification such as those in relation to sitting comfortably, letting gravity help, having both hands work instead of one, making the job safer, using a better tool, arranging work so that everything is within elbow reach, and using all possible help, thereby working out an improved method. Effort should be made also to make these tasks interesting to the girls. Studies show that uninteresting tasks tire the doer most.

At farm and 4-H Club meetings such as on Achievement Day, and at home demonstration club meetings, 4-H Club girls can emphasize work simplification methods in demonstrations. These demonstrations might include easier methods of doing repetitive jobs - stringing beans, peeling potatoes, using the pressure cooker, hanging up clothing, washing dishes, cleaning drawers, and numerous other household tasks.

4-H Money-Management Activities

4-H boys and girls will continue in 1944 to have more money to handle than in previous years. In addition there will be "dangerous" dollars for which there will be nothing to buy. 4-H Club members can aid in controlling inflation as well as learn how to manage their money through such activities as: 1) Keeping personal accounts showing what they spend, share, and save of the money they earn or receive. 2) Assisting their parents in keeping records that will aid in making out income-tax reports. 3) Planning and building business centers. 4) Buying nothing except what is needed. 5) Investing in war stamps and bonds. Much encouragement is derived from the fact that 161,559 4-H boys and girls kept personal accounts in 1942 - four times as many as in 1941.

Home Safety

Thousands of people die yearly in farm homes due to accidents caused by falls, burns, cuts, and bruises. 4-H Club members can aid greatly by repairing equipment, helping family members to become conscious of orderliness, and themselves practicing safer ways of doing their work. Team demonstrations in detecting farm and home hazards are already proving popular.

Summary

There is a need for the 4-H home-management program in 1944 to continue to emphasize better management of the home and provide for recognition of this work. There is still a great need for teaching boys and girls the skills involved in homemaking tasks and "work simplification" demonstrations at public meetings afford an opportunity to "play up" these skills.

In 1944 the use of money by adults and 4-H Club members alike will help to decide the kind of post-war living we shall have. The program for 4-H Club members should help them to understand the part they play in controlling inflation, how they may help to finance the war through savings, how the use of dangerous dollars can upset our national economy, and how records, both personal and family, will lead to individual and family economic security.

Club members all cannot be sailors, soldiers, WAVES, or WACS. They all cannot fly planes or patrol the sea in submarines, but every 4-H boy and girl can help -

1. With the farm and home work by learning to do those jobs efficiently.
2. To increase the individual war effort on every farm by detecting and removing farm and home hazards.
3. In the mass war effort by learning to use money wisely.

FOODS AND NUTRITION

Miriam Birdseye
Extension Nutritionist

1. Fitness, vigor, and general good health for every club member.
 - a. Create the desire in every club member to develop into a strong, well set-up boy or girl, free from defects and weaknesses that disqualify for military and civilian service.
 - b. Reemphasize the daily 4-H score cards for food habits and health habits.
 - c. Promote periodic health check-ups and correction of physical defects wherever local facilities permit. Interest club members in helping younger brothers and sisters to do the same. Volunteer club leaders need inspiration and help to make this a vital part of the program.
2. Encourage 4-H Club boys and girls to do their utmost in helping to plan, grow, and preserve a food supply as adequate as possible for family needs. This should be done through definite projects in gardening, canning, freezing, drying, storing, and also through special 4-H home labor projects.
 - a. Club members can take charge of the family Victory Garden or a definite part of it, and help with the various garden activities.

- b. They may can a part or all of the fruits, vegetables, and meats, included in the family canning budget and help to set up convenient shelves for canned products. Judging for quality and exhibiting can become important in days when so many adults are canning for the first time.
 - c. In many States 4-H Club members are helping to prepare foods - vegetables, fruits, and meats - for freezing in community frozen-food lockers or in home freezing units. The scientific background of variety selection and freezing techniques should appeal to teen-age club members.
 - d. Providing appropriate indoor and outdoor storage facilities for homegrown fruits, vegetables, and cured meats, and watching to prevent deterioration during storage are other big contributions for older club members to make.
 - e. Members can help to dry and dehydrate fruits, corn and other vegetables. Some older boys can make dryers and dehydrators under direction.
 - f. Brining, an age-old method of conserving quantities of late-planted, quickly grown fall vegetables, which has recently been restudied, can be given attention as part of the home food supply.
3. Each 4-H Club member should be helped to work out a daily pattern for three meals which will be adequate for himself. Older club girls should work out patterns for the family's three meals a day and check these meals to see that they furnish the needed protective foods.
4. It is more necessary than ever for club girls to understand how to prepare and serve the "basic seven" foods in such a way as to keep their food values intact and to make them palatable. Efficiency and time saving in food preparation are especially important now. Girls should be prepared to take considerable responsibility in connection with the preparation of family meals, especially where mothers are doing outdoor or factory work.
- a. Packing lunches for members of the family who eat away from home is service now rendered by thousands of club members enrolled in pack-a-lunch clubs.
 - b. Club members enrolled in hot school-lunch clubs have accepted definite responsibilities in connection with preparing and serving school lunches.
 - c. Outdoor cooking projects in some States add interest to the hikes and picnics that should form an important part of the 4-H Club member's recreation in wartime. Such skills prove useful in emergencies such as the recent explosion in Easton, where a large area was temporarily without gas for cooking.

5. Club members should be recruited for the Food Fights for Freedom Campaign. The essentials of the program should be simply presented to them, and their help obtained in saving food in all its forms.

It is important for club members living on farms to understand the more important O.P.A. regulations regarding the sale of home-grown and home-processed food and to help in the campaign to stamp out black marketing.

6. Team demonstrations and exhibits are traditional parts of the club program and should be carefully planned to prepare club members to pass on to neighbors and to groups skills that need to become more widespread in the community. Examples might be: Canning techniques, care of pressure cookers, and simple food preparation techniques.

SOME SUGGESTIONS TO HELP 4-H CLUB MEMBERS MAKE WARTIME ADJUSTMENTS

L. A. Lynde

Extension Specialist in Parent Education

Encourage 4-H Club members to discuss with their parents the effect the war is having on their families and themselves, and plan with them:

1. How they can maintain family well-being and unity in spite of difficulties, shortages, and deprivations.
2. How they can make the maximum use of all they have.
3. What part each one can do in renovation, repair, and adaptation in maintaining the home and farm.
4. How they as a family can make the maximum contribution to the war effort.
5. How they can counterbalance tensions with greater kindness and sharing together.

Encourage 4-H Club members to share home responsibilities in planning, growing, conserving, and preparing for consumption the family food supply; in making the home more comfortable for all its members; and in connection with the following main activities:

Recreation.

4-H Club members can:

1. Plan and conduct family celebrations - birthdays, etc.
2. Make games and conduct family fun nights, picnics, hikes, and parties.

3. With the boys and girls in neighboring homes, plan and prepare for neighborhood fun, construct game equipment, conduct picnics and parties, and make toys for the neighborhood Christmas.

Clothing.

4-H Club members, both boys and girls, can:

1. Assume more of the care of their own clothing.
2. Plan with their parents for best use of garments and materials.
3. Help other members of their families with their clothing, and clothing problems.
4. Help with cleaning, repair, and general maintenance.
5. Learn to select clothing with an eye to durability as well as for style and color.

Child care.

4-H Club members can release more adult time for war work by caring for younger brothers and sisters and the young children in the homes of neighbors:

1. Take over the care of a brother or sister.
2. Help a neighbor by caring for a child.
3. Teach children safety habits.
4. Arrange and conduct neighborhood play groups.
5. Help at community or neighborhood child-care centers.

HOME INDUSTRIES

Leonore B. Fuller
Extension Agent, Home Industries

Visits to a number of States in recent months and talks with 4-H Club leaders, indicate an increasing interest in the home industries program. Many young people from our rural areas have gone to the cities to serve their country by working in war industries where the skills they developed as 4-H Club members have been invaluable. As the need for their services in these industries decreases, many of them probably will return to their rural homes, to remain at least until workers who feel especially fitted for industrial jobs can find their places when industries have been converted from a wartime to a peacetime basis.

Forward-looking leaders in the Extension Service are endeavoring to anticipate this movement by keeping alive an interest in practical skills, such as woodworking, forging, tanning, spinning, weaving, and sewing. Plans are also under way to establish what is known as Small Rural Industries, designed to provide seasonal occupation and add to the cash income of rural people. And, though we feel that skill in handicrafts will be of immediate practical use, it is well not to lose sight of the fact that handicrafts also allow scope for the development of individuals along creative lines and tend to have a definite community value.

Their practical value is obvious. Out-of-doors farm buildings and farm equipment will need repair; within doors, probably sagging sofas, dilapidated chairs, faded and worn draperies will need reconditioning. A number of things that have necessarily had to be left undone because of greater and more pressing needs due to war activities will require attention. The skills necessary to undertake the work of restoring both the exterior and interior of farm homes if they are to be made more attractive and livable, are not acquired overnight. A knowledge of this fact inspires 4-H Club leaders and many other Extension Service workers to feel that interest in a balanced program must be maintained.

4-H Club members have made splendid use of their leisure in past years. The articles sent to the Department of Agriculture in Washington for an exhibit, displayed in the patio of the main building during the National 4-H Club Camp in 1941, gave proof of this. This exhibit was sent to many States upon request, but now that a traveling exhibit is not possible because of transportation difficulties, it is on exhibition in glass cases in one of the offices of the Federal Extension Service, where they have been seen by representatives of many foreign countries. The exhibit has not only been much admired but has afforded excellent suggestions for putting to practical use fibers and other native materials that would otherwise have been wasted. In several States the work of recreation specialists and of handicraft specialists has been combined or their work is done in close cooperation with one another. This is especially true of 4-H Club leaders who are engaged in planning interesting programs of work and play during club camps.

Food production, conservation, and preservation are vital and will be for years to come, and 4-H Club members will always back this program to the limit, as they have done in past years. But, there is leisure - there must be - for recreation. Why not make constructive use of this leisure?

LAND-USE PLANNING

Virgil Gilman, Extension Economist

Even though farm boys and girls live on the land, they frequently do not have a good bird's-eye view of land resources and how these resources are used in the community. A number of land-use planning activities can be carried on by young folks to help them get a community-wide view of the land resources on which they live.

Mapping present land use in terms of major crops, pasture land, and woodland, is an instructive piece of work. Mapping the boundaries of operating units is another. These two jobs done on a community basis show how the pattern of operating units is related to the pattern of land use, and suggest how individual farms are made up of combinations of different types of resources.

Land ownership can be mapped and studied. This activity helps to explain the lay-out of individual farms and calls attention to the existence of land leases, grazing rights, and private and public land-management functions.

Many farm production problems have a land-use angle that can be brought out by simple mapping. An excellent example is the showing of patches of noxious weeds on a community map as one step to aid a cooperative program of control.

The physical characteristics of local land resources - soil, water, grass, and timber - are worth much study. For example, in the West where water is so important, the mapping of the local drainage pattern, the measurement of stream flow, the operation of homemade rain gages, the measurement of irrigation water, and the keeping of records of water levels in wells all offer possibilities for worth-while work.

The pattern of land occupancy can be shown by spotting the location of farmsteads and farm population on a map. This device is helpful in studying the use of such facilities as roads and schools, appraising the possibilities for neighborhood and community cooperation, and uncovering work opportunities.

In carrying on such activities, boys and girls become acquainted with soil maps, highway survey maps, topographical maps, and other basic land-use planning materials. They get a community-wide view of local agriculture within which to orient such individual projects as those in crop and livestock production and soil conservation. Also, and very important, they become aware of the more complicated community-wide problems in land tenure, public services and facilities, land conservation and development, and farm organization that they must deal with as they grow into citizenship in the community.

SOIL CONSERVATION

E. C. Hollinger, W. R. Tascher, J. V. Webb
Soil Conservationists

Soil and water conservation can do much to accomplish maximum production to meet war needs in 1944. Without change in land, equipment, labor, and other resources, conservation practices bring a net increase in production while protecting the land for continued production. Members of 4-H Clubs and older rural youth can increase production by helping to establish needed soil conservation measures and thus help to protect the land for continued high production of quality food and fiber crops.

All 4-H Club members should learn about the importance of soil conservation and the relation of soil fertility and soil conservation to both the production of crops and their nutritive content. Soil conservation for wartime production can be emphasized in various ways, as through team demonstrations, group discussions, 4-H posters, and exhibit and public speaking contests. Training in soil conservation can be integrated with 4-H camp programs by use of moving pictures and other visual educational aids and by field observations of the effects of erosion and of conservation work.

Soil conservation in all 4-H agricultural projects. - Each 4-H project that involves the use of land (for crops, garden, livestock) should provide for selection and treatment of land according to its adaptabilities and the needs of the project. 4-H Club members should be guided in applying the conservation practices that are adapted to the land they are using in their projects. They should grow crops of high nutritional value.

Soil conservation projects. - Special 4-H projects in soil conservation, such as farm conservation planning, terracing, and conservation study clubs, should be adapted to local wartime production needs. Groups of 4-H Club members can help to increase the harvest of foods from "wasted" areas. Soil conservation 4-H Club work can be carried on with success in soil conservation districts especially where district supervisors or assistant supervisors help them with those projects. Soil Conservation Service personnel assigned to the districts can from time to time provide technical assistance to county extension agents and 4-H Club leaders.

Older rural youth. - Studies and discussions by older 4-H Club and other youth groups should be designed to develop a clear understanding of the relationship between soil productivity and rural family welfare. This gives opportunity for parent-youth teamwork in soil conservation. Rural youth can also participate in neighborhood group effort in soil conservation, especially in soil conservation districts. When properly trained, these young people can do various skilled jobs essential to successful conservation work. They should learn something of the erosion problem that followed the first World War and thus be awakened to the necessity of helping to protect the land during and after the present war.

Extension Service educational aids. - Extension workers can contribute to soil conservation education by providing literature and other educational aids to 4-H Club leaders, school teachers, and young people.

4-H Club leadership in soil conservation. - The 4-H Club program should provide training for potential and active leaders, to equip them for effective participation in the various phases of 4-H Club soil and water conservation work.

Fundamental Facts All Youth Should Know

"Only about 11 percent of the earth's total land area, whether it be in the hands of our enemies or our friends, is capable of cultivation now or in the immediate future. This relatively small fragment of earth is all the

human family can draw upon. Today the world faces a scarcity of productive soil. Some two billion people depend for sustenance on only four billion acres or barely enough to supply a minimum diet.

"Our best estimates of the land situation indicate that from two-third to three-fourths of the world's available croplands are subject to erosion. Of this, at least two-thirds already has been damaged because of such wasteful practices as up-and-down hill farming, continuous use of soil for a single exhausting crop, or cultivation of steep land that should be used only for grass or trees.

"Conservation farming is the equivalent of finding new cropland. Every five farms where conservation is completely installed are now producing the normal output of six untreated farms.

"Soil conservation becomes a basic link between nations for the betterment of people as a whole. It is a constructive force for binding together land users within community areas, and for building international good will and understanding. It will lead in the direction of world peace probably more than any other activity of mankind." -- H. H. Bennett, Chief, Soil Conservation Service.

"The soil fertility on an individual farm can be depleted enough through failure to return manure, crop residues, and other fertility to farms in a single human generation, to shift that farm from a place of good health to one of deficiency diseases for the farm animals and for the families on it. The same crops, still growing after 50 years of farming, may have shifted from protein-producing, mineral-supplying, health-giving sustenance to vegetation mainly of fuel value, with nutrient deficiencies. The shifts may occur without changes in tonnage output." -- William A. Albrecht, Soils Department, University of Missouri.

"The quality of our nutrition depends upon the quality of our food. The quality of our food depends primarily upon the quality of the soil upon which it is grown. . . We must see to it that our soil is so treated and so conserved as to supply, no matter how long the war may last, forage that is rich in protein, minerals, and vitamins; so that our meat, milk, eggs, legumes, and cereals shall be rich in all essential factors." -- Johnathan Forman, M. D., Editor Ohio State Medical Journal, Lecturer on Medicine in Ohio State University.

People traveling in some parts of Europe are impressed with the great care that farmers take of their land, and in such localities productive soil is thought of as something of great value. We once had so much life-giving land in the United States that we have taken productive land too much for granted. The great need for food now and after the war should bring young people as well as adults to face the problem squarely. The opportunity to increase food production substantially with the same land, labor, and equipment and to maintain or improve the land for future production by use of conservation measures, should be recognized by all club members. Through their project work and club organizations they should do their utmost to get such conservation measures in use on the land.

FORESTRY

W. K. Williams, Extension Forester

The military services are requiring a steady supply of forest products. The Army has a slogan, "Keep the lumber coming," which applies to timber production on both farm and industrial forest land. In view of the tremendous war need for forest products, it is suggested that 4-H Club activities be developed with particular emphasis on conservation of resources and on production. This would apply largely to older members who have had some experience in the woods, can handle tools, and could, perhaps, get out fuel wood, pulpwood, or other timber products. A few suggestions are offered for consideration. Although not new, they can it is believed be emphasized strongly at this time.

1. Fire protection as it applies to both the farmstead and the farm woods offers 4-H members opportunities for patriotic service. Farm youth are often quicker to sense the danger of fire and, being familiar with the woods in the community, can assist local groups in discovering and fighting fire. Club members under 4-H leaders can organize fire patrols, assist volunteer fire-fighting crews, put up posters, and distribute literature on prevention and control.
2. By cutting a cord of fuel wood or pulpwood or perhaps by assisting with the production of sawlogs, 4-H Club members can help to back the attack. In woods operations it is suggested that older 4-H youth work along with adults for safety. Production in small or large quantities will help to meet farm and industrial war needs.
3. Tree planting, a popular project among 4-H Club members, is needed on many farms. Because of the labor situation, more responsibility falls on 4-H Club members for the planting of trees on poor hillsides, eroded or idle lands, and for the planting of farm shelterbelts. Memorial groves, especially on rural-school grounds, sponsored by 4-H Clubs, may have a place in the community program.
4. Older 4-H members with experience in woods work are in a position to help in the training of town youth and to organize groups such as Timber Bees to cut fuel wood or other products. Perhaps in many areas older high school youth with some guidance from club members could be used in the woods for short periods.
5. Wildlife activities dealing with game birds, fur-bearing animals, and fish, including those in farm ponds, stimulate much interest among 4-H members. Fish from the farm pond may provide a wholesome addition to the family diet.

4-H Club members have an unparalleled opportunity to help in conserving resources, to assist with forest production, and to perform other tasks ordinarily done by older men now in the armed services.

RURAL FIRE PREVENTION

A. M. Sowder, Extension Forester

There is little doubt but that the 415,000 4-H Club members who participated in fire-prevention activities in 1942 contributed materially to the acknowledged reduction in farm fire losses. There is still much to be done, and because of the manpower shortage 4-H Club members will be leaned upon more heavily than ever to perform the tasks within their ability.

The Problem

	<u>Yearly loss</u>
Farm-fire	\$ 80,000,000
Rural-fire (including the foregoing farm losses)...	225,000,000
Forest-fire	37,000,000

The Answer

Everyone should put his shoulder to the wheel to reduce these losses.

A Ten-Point Program

1. Probably the greatest assistance 4-H members can give to the rural fire program is to locate and remove farm fire hazards. Check lists prepared by the States calling attention to fire hazards can be used to identify these hazards. Have 4-H Club members taken action to remove the hazards?
2. Ferreting out hazards provides opportunity to inventory farm fire equipment and facilities. Do the farmers have their fire-fighting tools readily available and in tiptop shape?
3. Is there a supply of water on hand in barrels, ponds, or wells? Is the water hose ready for action? One State suggested that since people are bound to rush to a fire, the admission price should be containers of water left at the fire for the fire fighters. Water surveys may be made on a farm, community, and even county basis, and water sources marked on maps, especially where streams and irrigation ditches cross highways.
4. Is there a safe ladder on the farm long enough to reach the roofs of the tallest buildings - and is it kept handy?
5. Has each member of the 4-H Club had training in plowing or digging fire breaks about farm buildings or haystacks? This is locking the barn door before the horse is stolen.

6. Has every 4-H member served on a demonstration team, or undergone training in fire prevention, or, as far as the older boys are concerned, become proficient in fire fighting?
7. Is the club organized to patrol for fires, spread fire alarms, serve as water carriers, prepare and distribute lunches to fire fighters, render first aid, or raise money for fire-fighting equipment?
8. Lanes leading from highways to farms must be kept in good repair to avoid such difficulties. Did you ever follow a fire apparatus to a farm fire only to see it bogged down in a farm lane just short of the fire?
9. Is the club prepared to carry on an educational program, to sponsor essay writing, give talks, conduct demonstrations, develop posters, set up exhibits, etc.?
10. Are club members familiar with county, State, and Federal laws relative to fire prevention and control, sabotage, etc.?

ACTIVITIES IN AGRICULTURAL ENGINEERING

A. T. Holman

Extension Agricultural Engineer

There is increasing need for 4-H Club members to become skillful in the use of farm power, machinery, equipment, and tools. Club members should learn how to use these things efficiently and how to maintain them properly. They should become mechanics conscious to develop ways and means of using power and equipment to better advantage.

All club members should learn how to direct and use power efficiently. They should know that as directors of power their efforts are multiplied many times over their capacity to perform work by labor alone. For example, one horse is equivalent to approximately 10 men, and a 15 horsepower tractor to 150 men, in doing work that may be done by power equipment.

Successive generations of club members and farmers become increasingly more power conscious, but there is a lag in their development and use of modern equipment. Custom and tradition, normal retarding influences, should not deter the adoption of progressive labor-saving practices in wartime.

Broad projects should be developed in 4-H Club work to guide, encourage, and reward members in their efforts to make their farm equipment more productive. Such projects should emphasize either increasing productive capacity through the efficient use of power and machinery or ways and means to conserve machinery, structures, and equipment. Suggested examples of such projects are listed as follows:

1. Analyze the farm power, machinery, equipment, and labor problems and determine the equipment needs for maximum efficient production.
2. Determine how existing machinery may be used more efficiently to increase the production of the farm and the production per worker.
3. Develop labor-saving equipment and practices for increasing efficiency on the farm and in the home.
4. Plan, develop, and equip suitable farm shops for the maintenance and repair of farm machinery and equipment.
5. Study the needs for maintenance and repair of farm buildings, and accomplish definite repair and maintenance work on one or more structures.
6. Develop or improve the farm shop and equipment to provide better facilities for the maintenance and repair of farm structures and equipment.
7. Study the farmstead lay-out and develop more efficient arrangement through changing the locations of fences, gates, walks, and drives.
8. Study the lay-out and arrangement of farm buildings and develop more convenient arrangements wherever possible.
9. Check the buildings, equipment, and farmstead for fire hazards, remove the hazards and develop fire-fighting plans and equipment.
10. Check the buildings, premises, machinery, and equipment for dangerous conditions and practices, and develop safe working conditions.
11. Analyze all physical resources - land, buildings, and equipment - and develop ways and means for their conservation and utilization.

4-H Club projects of these types have been developed in some States. However, if they were planned more completely in every State, they would provide a wide range of activities for Club members that would aid in the war effort.

MARKETING SUPPLIES AND CONTAINERS

Paul J. Findler, Extension Economist

Lumber used for military purposes has cut heavily into supplies available for fruit and vegetable containers. This shortage and limited supplies of substitute materials make necessary the salvage of all usable second-hand wooden containers.

Every container salvaged is a direct contribution to the war effort. The lumber, wire, or nails in one basket or crate may not seem much, but if that package is salvaged and re-used, that much more of these critical materials will be available for making other containers for use in other war activities. For instance, 1,000 salvaged apple boxes contain enough wood to crate an average-sized airplane for overseas shipment. The metal in 60 wire-bound citrus boxes will supply the nails and straps for crating a jeep. Five bushel baskets contain enough lumber to box 1,500 rounds of machine gun ammunition.

Extension work is already being done in salvaging used containers in certain of the large terminal markets. There is apparently considerable opportunity to increase the salvage of second-hand containers in smaller cities and towns. 4-H Club members have an opportunity to assist in this wartime activity. Even though a farm uses only a few bushel baskets, hampers, or boxes in the marketing of produce locally, it will be advantageous to collect or purchase those needed containers during the winter and spring months. Usually the retail stores in towns are willing to sell these containers at a nominal price. They may even be glad to give them away, for at times they must be disposed of to the trash or garbage collector. Of course these containers should be stored in a barn or shed so that the wind, rain, and sun do not destroy their usefulness. They should be kept in a place that is clean, for we must realize that perishable food products will be marketed in these containers. At times, growers may not be able to buy reconditioned second-hand packages from dealers in the cities. Where this is true, there is an opportunity for 4-H Club members during rainy days and spare time to re-sort the containers and repair those that are in first-class condition.

In addition to reconditioning containers, which would include renailing of boxes and crates, there is a possibility of remaking containers. The suggestion has been made that a standard orange box from California can readily be converted into a standard apple box that will contain one bushel. This can be done with the tools available on the farm and would provide 4-H Club members with experience in carpentry while they are making needed containers. The California lemon box and the Florida citrus box also offer opportunities for making standard containers for vegetables. Suggestions on how to remake these containers are contained in How To Make Standard Containers From Second-Hand Boxes. 3/

3/ U. S. Dept. Agr. AWI-56. Folier, illustrated. July 1943.

All types of bags continue to be short in supply. This is especially true of burlap bags. Such bags are, of course, best adapted to re-use, and 4-H Club members have an opportunity to help save these needed bags. Care should be taken to see that they are completely emptied, turned inside out, and shaken. They should be carefully sorted and piled so as not to be accessible to rodents. Some bags can be sold back to your feed dealer. Others may be used for marketing potatoes on local markets, and if so, retailers should be asked to save the bags for use again. When bags cannot be used or resold to feed dealers, they should be saved and contact should be made with a bag dealer in a nearby town or city to see if he will purchase them.

If any waste of bags, wooden boxes, and baskets is to be avoided, there must be full salvage, conversion of boxes into serviceable containers, and additional re-use through careful handling. These efforts will add to the supply of containers needed to get fruits and vegetables to market in good condition. The conservation of vital materials and the preservation of essential foods add up to a worth-while contribution to the war effort.

GRAIN MARKETING

W. B. Combs, Marketing Specialist

Our food problems in 1944 will fall under two heads: First, production, and second, distribution. Our responsibilities on the food front will not be fully discharged until both production and distribution problems are satisfactorily completed.

Before food can be distributed equitably over a wide area, it must first be assembled, graded, sorted, and often processed. Under most wartime programs, prices are fixed and the returns to the producer are based on yield per acre and U. S. grade.

Club projects in the field of distribution will encourage efficient marketing, preventing waste as a war emergency program. This will be valuable also after the war in making the adjustments to a peacetime economy.

Projects dealing with the following problems are recommended:

1. Efficient assembly of farm products in the community, for carlot shipment, with a minimum use of transportation equipment.
2. Prevention of storage losses on the farm and in country elevators.
3. Treating grain to destroy insects.
4. Premiums and discounts at terminal markets and in price-support programs.

5. Local market premiums for quality: Do they involve costs that exceed the premium?
6. Cost accounts for a grain crop produced and marketed.
7. Trip to nearby grain elevator, flour mill, or oil processing plant to study market demands for quantity and quality.
8. Survey of storage and grade losses in the community and suggested program to limit the losses.
9. Study of seed selection, seed treatment, and proper cultivation and harvesting methods.
10. Learning to make a few simple grading tests, as weight per bushel and dockage determination, and demonstrate before a group of members.
11. Learning how to adjust a combine or thresher to prevent cracking the grain or seeding the land with weeds.

Projects should be concentrated on needed crops such as soybeans, flaxseed, feed grains, peanuts, dry beans, selected from crops and varieties adapted to the county.

Boys have become men overnight as they take the places on the farm of those leaving for the armed forces. Girls have also taken men's places insofar as filling jobs on the farm is concerned. Hence the club projects should be enlarged along with the responsibilities on the farm. These projects should be of such size that members will feel they are making a substantial volume contribution to the food supply of the Nation.

4-H PROGRAM TO FAMILIARIZE CLUB MEMBERS WITH THE FUNCTIONS OF COOPERATIVES

H. I. Miller
Extension Economist

Rural youth should find the time devoted to studying the plans of cooperative marketing profitable because it provides valuable knowledge for large numbers who, as farmers and farmers' wives, may be future directors of cooperatives. It offers a limited amount of training to the few of them who may become managers of cooperatives.

The 4-H Club project should probably be divided into two phases; First, an analysis of the principles of cooperative marketing; and, second, a study of the business operations of the cooperative.

Under the principles of the successful cooperative should be included factors such as:

1. Care not to duplicate services that are being handled adequately by existing facilities.
2. Analysis of the factors that go to make up true "co-ops" under the Capper-Volstead Act, such as "one man, one vote," "majority of the business with members of the co-op," "payment of dividends based on the patronage of members."
3. Analysis of services that cooperatives may perform, such as buying, selling and bargaining, checking weights and tests, collecting for sales.

Under the business operations of the co-op, such important considerations as proper accounting systems, handling of credit problems and of membership relations, and a thorough analysis of operating efficiencies might well be included.

